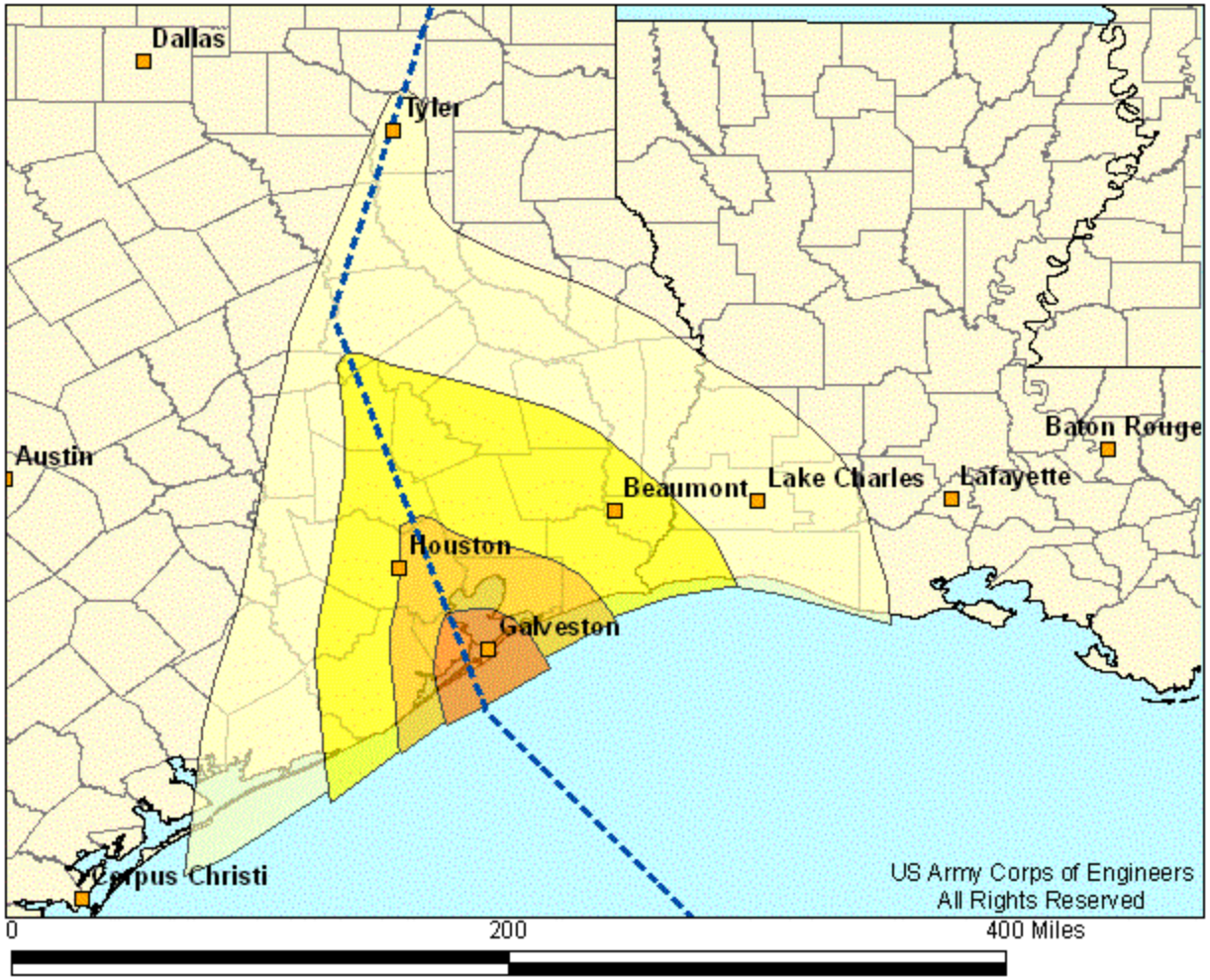
US Army Corps of Engineers

Hurricane Ike Projected Damage Areas

Landfall Expected In About 22 Hours

For Planning Purposes Only!



Post Landfall Projected Damage Areas

This model is based on a Category 3 storm making landfall near Galveston, TX.

Forecast Track
Historic Track

Projected Damage Areas

- CAT 0-type damage
- CAT 1-type damage
- CAT 2-type damage
- CAT 3-type damage
- CAT 4-type damage
- CAT 5-type damage

Information provided on this page displays a Category 3 storm making landfall near Galveston, TX. These projections are based on information from the NHC (0500 EDT 09/12/2008) forecast.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

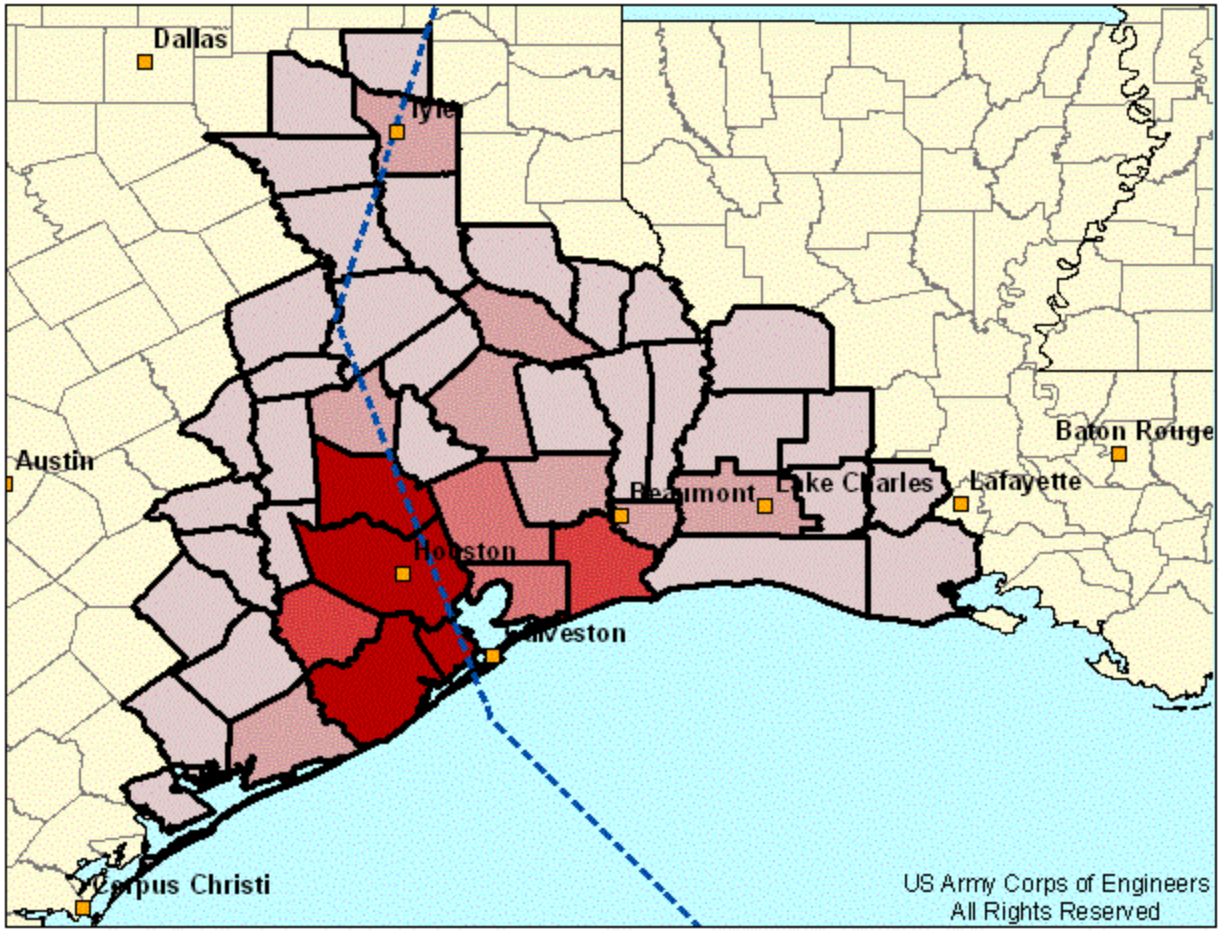
Hurricane Ike Projected Damage Areas	
Generated By: Siemsen/Deatrick, LRL 0730 EDT 09/12/2008	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Ike Debris Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!



Post Landfall Debris Model Results

Texas - 28,110,000 Yards
Louisiana - 421,000 Yards

Model results per County on following page

This model is based on a Category 3 storm making landfall near Galveston, TX.

Forecast Track
Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 3 storm making landfall near Galveston, TX. These projections are based on information from the NHC (0500 EDT 09/12/2008) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Ike Debris Model

Generated By: Siemsen/Deatrick, LRL
0730 EDT 09/12/2008

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Ike Debris Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Louisiana		Acadia	2,000
		Allen	9,000
		Beauregard	52,000
		Calcasieu	235,000
		Cameron	39,000
		Jefferson Davis	61,000
		Vermilion	19,000
		Vernon	5,000
Louisiana	422,000		
Texas		Anderson	54,000
		Angelina	114,000
		Austin	17,000
		Brazoria	1,742,000
		Brazos	< 1,000
		Calhoun	3,000
		Chambers	288,000
		Cherokee	74,000
		Colorado	< 1,000
		Fort Bend	942,000
		Galveston	5,220,000
		Grimes	36,000
		Hardin	155,000
		Harris	15,850,000
		Henderson	7,000
		Houston	51,000
		Jackson	5,000
		Jasper	75,000
		Jefferson	717,000
		Leon	11,000
		Liberty	311,000

State	Yards per State	County	Yards per County
Texas		Madison	11,000
(continued)		Matagorda	165,000
		Montgomery	1,036,000
		Nacogdoches	62,000
		Newton	56,000
		Orange	246,000
		Polk	149,000
		Sabine	8,000
		San Augustine	8,000
		San Jacinto	85,000
		Smith	247,000
		Trinity	52,000
		Tyler	64,000
		Van Zandt	< 1,000
		Walker	144,000
		Waller	43,000
		Washington	< 1,000
		Wharton	60,000
		Wood	2,000
Texas	28,110,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Hurricane Ike Debris Model

Generated By: Siemsen/Deatrick, LRL
0730 EDT 09/12/2008

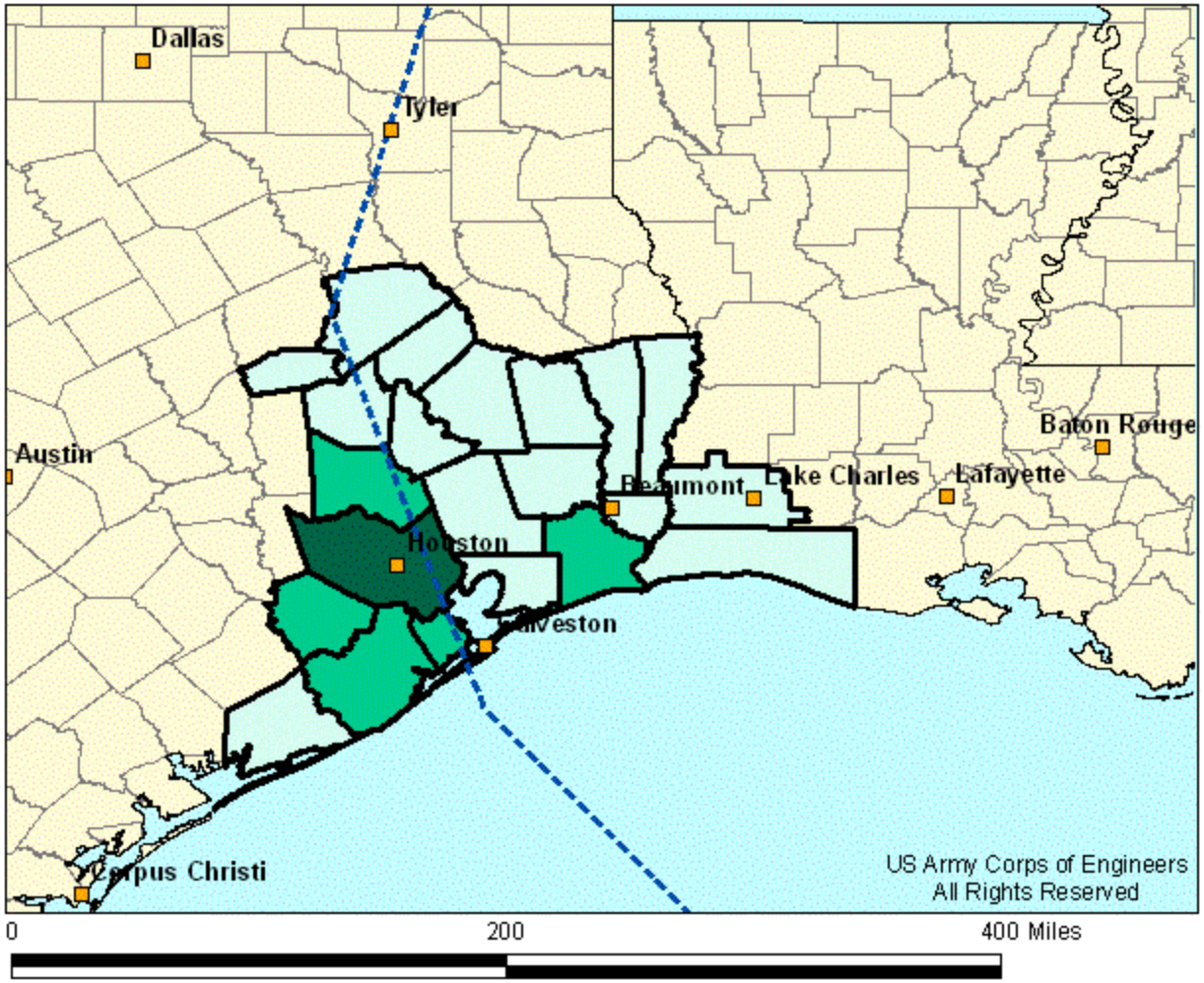
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Ike Commodities Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!



Post Landfall Water Model Results

Day One / Day Two / Day Three
Texas – 64/128/256 Truckloads
Louisiana – 2/2/2 Truckloads

Model results per County on following page

This model is based on a Category 3 storm making landfall near Galveston, TX.

Forecast Track
Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 3 storm making landfall near Galveston, TX. These projections are based on information from the NHC ***(0500 EDT 09/12/2008)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents single day needs with full distribution system in place and operating.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Ike Commodities Model	
Generated By: Siemsen/Deatrick, LRL 0730 EDT 09/12/2008	
Sources: HURREVAC LRL-DEBRIS	Page 4 of 13

US Army Corps of Engineers

Hurricane Ike Commodities Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
Louisiana		Calcasieu	1
		Cameron	1
Louisiana	2		
Texas		Brazoria	13
		Chambers	2
		Fort Bend	18
		Galveston	12
		Hardin	3
		Harris	160
		Houston	1
		Jasper	1
		Jefferson	11
		Liberty	4
		Madison	1
		Matagorda	1
		Montgomery	15
		Newton	1
		Orange	4
		Polk	2
		San Jacinto	2
		Trinity	1
		Tyler	1
		Walker	3
Texas	256		

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested needs based on phased deployment of a commodities distribution system.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane Ike Commodities Model

Generated By: Siemsen/Deatrick, LRL
0730 EDT 09/12/2008

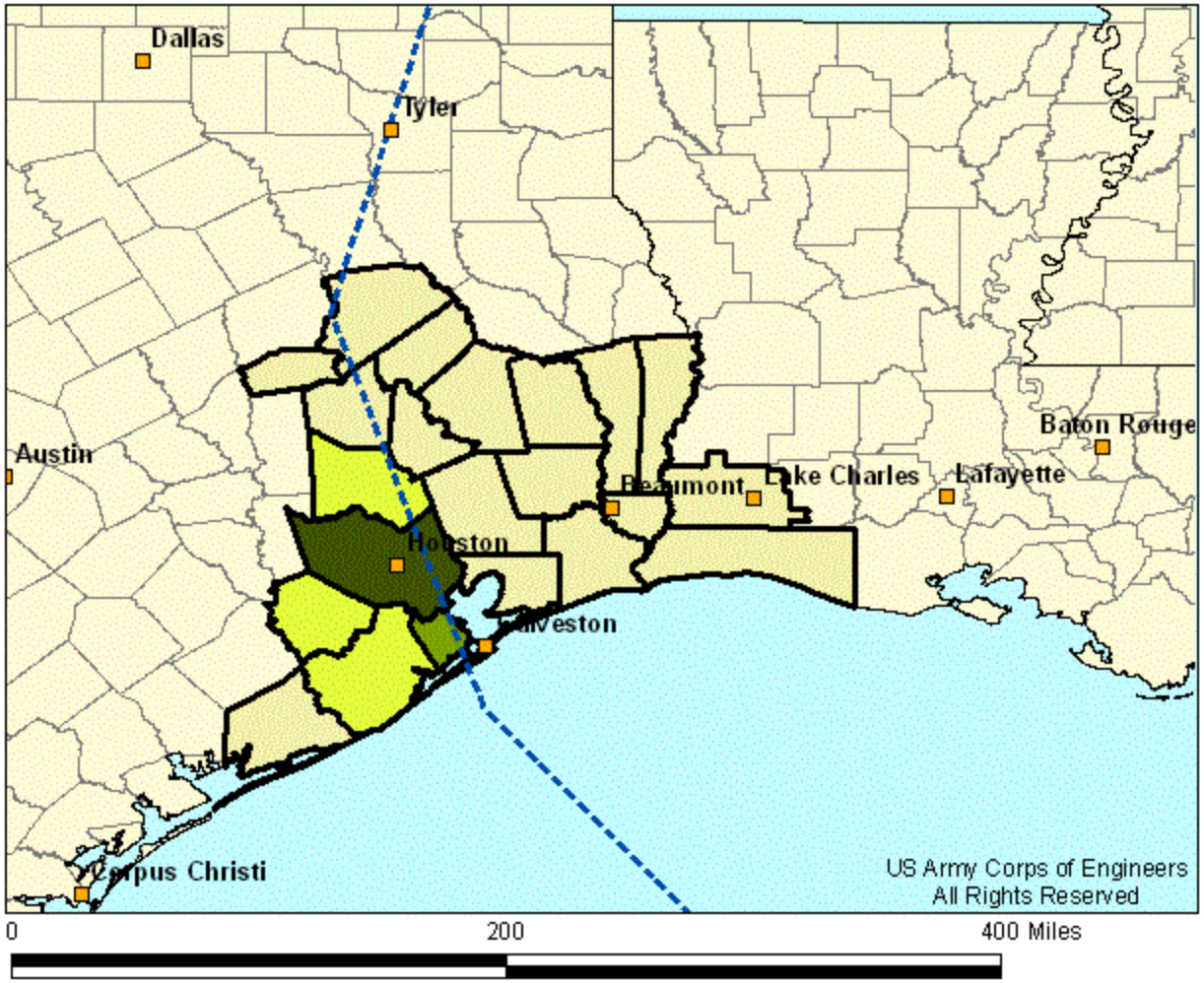
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Ike Temporary Roofing Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!



Post Landfall Temporary Roofing Model Results

Texas - 59,200

Model results per County on following page

This model is based on a Category 3 storm making landfall near Galveston, TX.

Forecast Track
Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 3 storm making landfall near Galveston, TX. These projections are based on information from the NHC (0500 EDT 09/12/2008) forecast. Temporary roofing is based on 2% in CAT 1, 5% in CAT 2 and 7% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Ike Roofing Model

Generated By: Siemsen/Deatrick, LRL
0730 EDT 09/12/2008

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Ike Temporary Roofing Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Louisiana		Calcasieu	< 100
		Cameron	< 100
Louisiana			
Texas		Brazoria	3,200
		Chambers	600
		Fort Bend	2,600
		Galveston	6,900
		Hardin	400
		Harris	38,700
		Houston	< 100
		Jasper	< 100
		Jefferson	1,800
		Liberty	700
		Madison	< 100
		Matagorda	< 100
		Montgomery	2,700
		Newton	< 100
		Orange	700
		Polk	300
		San Jacinto	200
		Trinity	< 100
		Tyler	< 100
		Walker	400
Texas	59,200		

Temporary roofing is based on 2% in CAT 1, 5% in CAT 2 and 7% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane Ike Roofing Model

Generated By: Siemsen/Deatrick, LRL
0730 EDT 09/12/2008

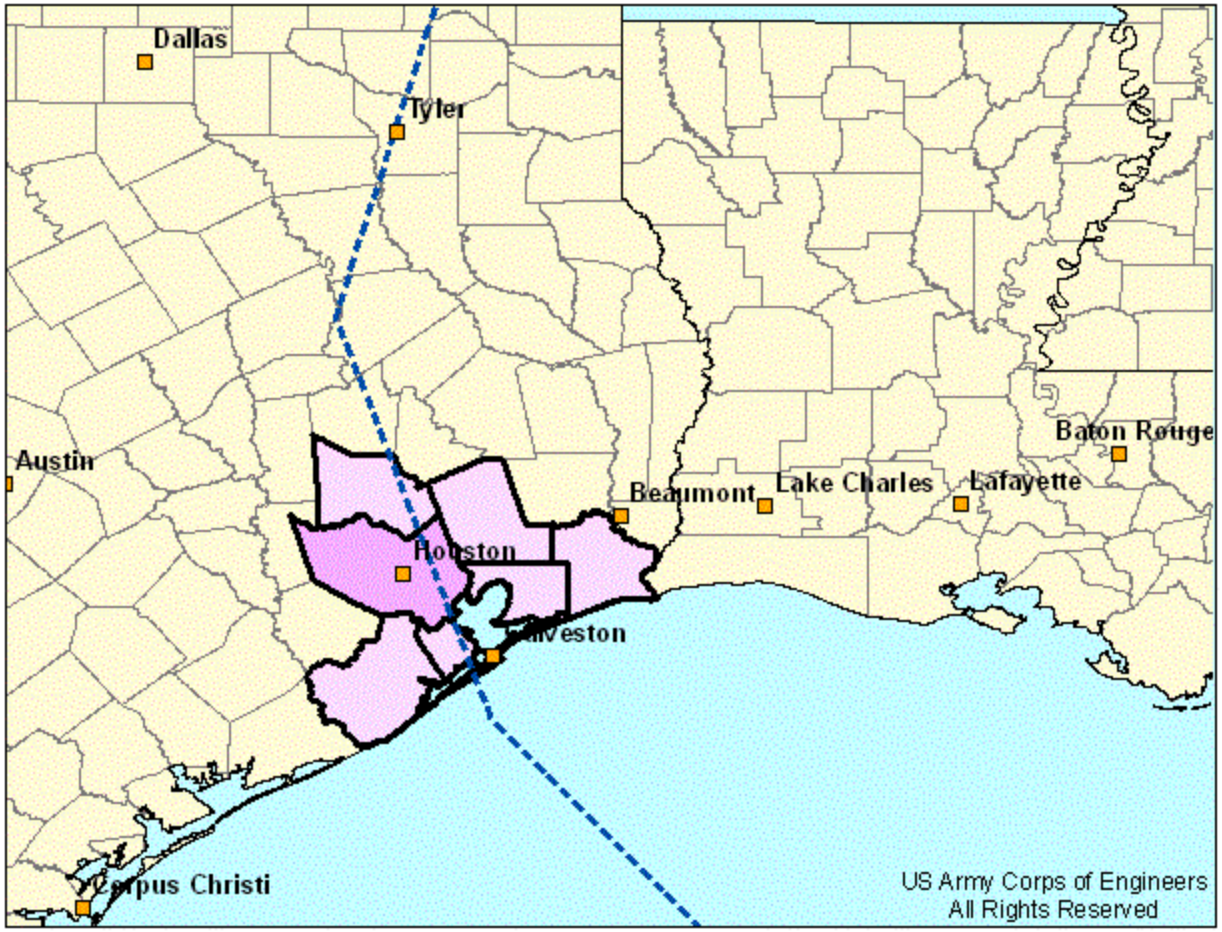
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Ike Temporary Housing Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!



Post Landfall Temporary Housing Model Results

Texas - 6,400

Model results per County on following page

This model is based on a Category 3 storm making landfall near Galveston, TX.

Forecast Track
Historic Track

Temporary Housing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 3 storm making landfall near Galveston, TX. These projections are based on information from the NHC (0500 EDT 09/12/2008) forecast. Temporary housing is based on 1% in CAT 2 and 2% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Ike Housing Model	
Generated By: Siemsen/Deatrick, LRL 0730 EDT 09/12/2008	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Ike Temporary Housing Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Texas		Brazoria	400
		Chambers	200
		Galveston	1,900
		Harris	3,900
		Jefferson	< 100
		Liberty	< 100
		Montgomery	< 100
Texas	6,400		

Temporary housing is based on 1% in CAT 2 and 2% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane Ike Housing Model

Generated By: Siemsen/Deatrick, LRL
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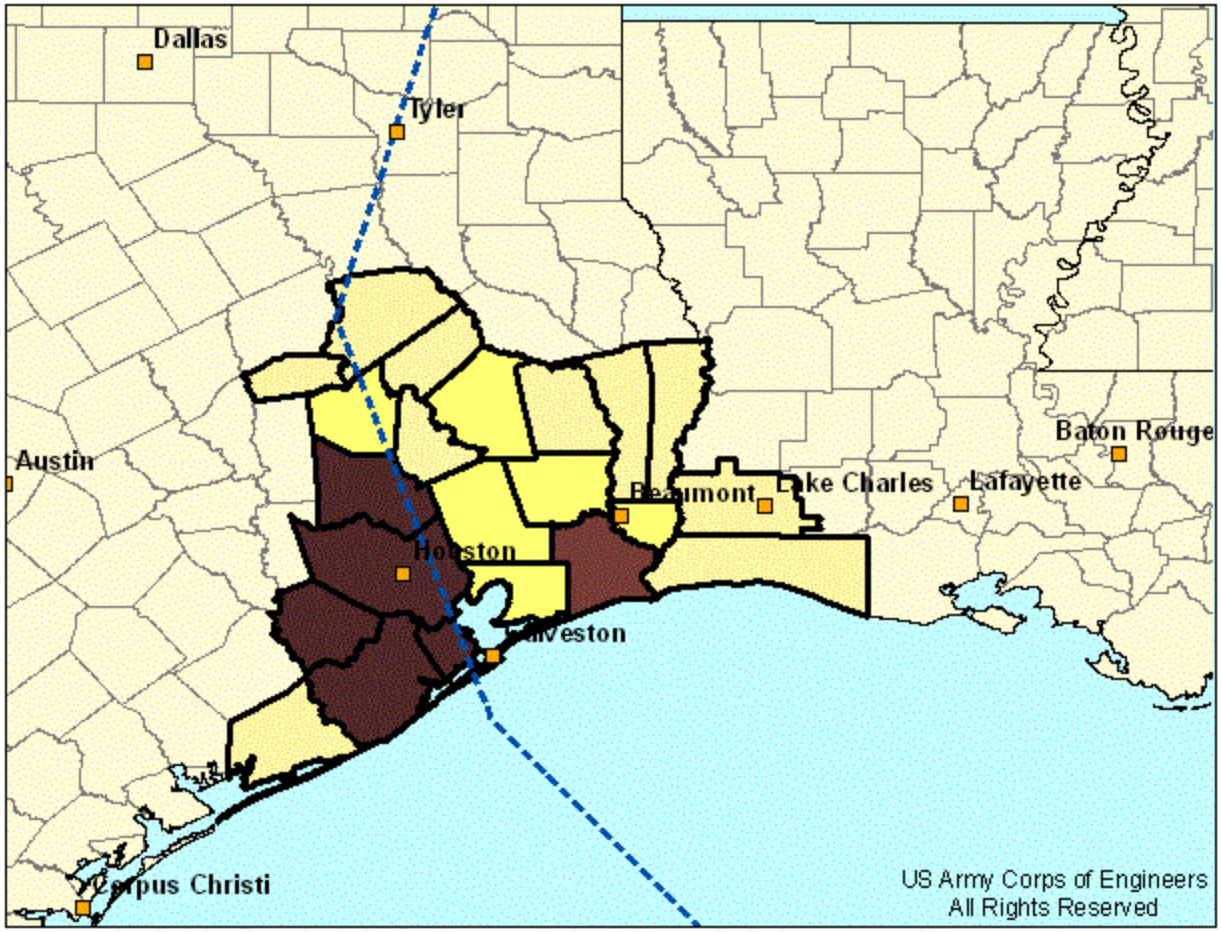
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Ike Population Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!



Post Landfall Results – Resident Population Within Hurricane Force Winds

Texas - 5,807,000
Louisiana - 5,000

Model results per County on following page

This model is based on a Category 3 storm making landfall near Galveston, TX.

Forecast Track
Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 3 storm making landfall near Galveston, TX. These projections are based on information from the NHC (0500 EDT 09/12/2008) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2007 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Ike Population Model	
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Sources: HURREVAC LRL-DEBRIS	Page 10 of 13

US Army Corps of Engineers

Hurricane Ike Population Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
Louisiana		Calcasieu	2,000
		Cameron	3,000
Louisiana	5,000		
Texas		Brazoria	293,000
		Chambers	29,000
		Fort Bend	418,000
		Galveston	285,000
		Hardin	52,000
		Harris	3,822,000
		Houston	2,000
		Jasper	8,000
		Jefferson	243,000
		Liberty	76,000
		Madison	< 1,000
		Matagorda	2,000
		Montgomery	358,000
		Newton	2,000
		Orange	83,000
		Polk	40,000
		San Jacinto	25,000
		Trinity	8,000
		Tyler	9,000
		Walker	52,000
Texas	5,807,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2007 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
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Hurricane Ike Population Model

Generated By: Siemsen/Deatrick, LRL
0730 EDT 09/12/2008

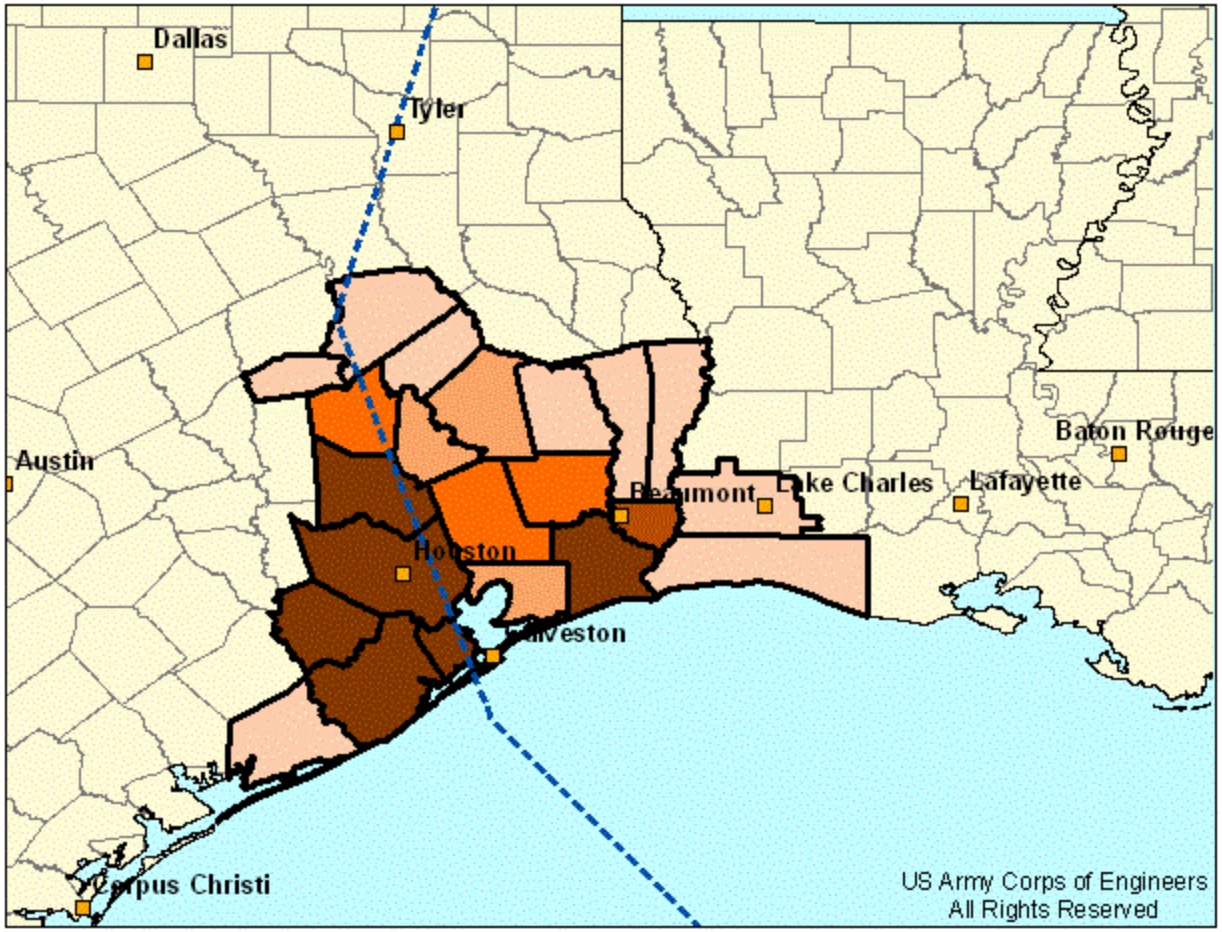
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Ike Households Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!



Post Landfall Results – Resident Households Within Hurricane Force Winds

Texas - 2,052,000

Model results per County on following page

This model is based on a Category 3 storm making landfall near Galveston, TX.

Forecast Track

Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 3 storm making landfall near Galveston, TX. These projections are based on information from the NHC (0500 EDT 09/12/2008) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2007 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Ike Households Model	
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Sources: HURREVAC LRL-DEBRIS	Page 12 of 13

US Army Corps of Engineers

Hurricane Ike Households Model

Landfall Expected In About 22 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
Louisiana		Calcasieu	< 1,000
		Cameron	< 1,000
Louisiana			
Texas		Brazoria	100,000
		Chambers	11,000
		Fort Bend	130,000
		Galveston	108,000
		Hardin	20,000
		Harris	1,359,000
		Houston	< 1,000
		Jasper	3,000
		Jefferson	90,000
		Liberty	25,000
		Madison	< 1,000
		Matagorda	< 1,000
		Montgomery	126,000
		Newton	< 1,000
		Orange	31,000
		Polk	15,000
		San Jacinto	10,000
		Trinity	4,000
		Tyler	4,000
		Walker	16,000
Texas	2,052,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2007 values.

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Hurricane Ike Households Model

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Sources:
HURREVAC
LRL-DEBRIS